

Figure 1

1 M-----ARAKLPSPSE-----GKAGPGGA-----PAGAAAPEE hSlo2
1 M-----ARAKLPSPSE-----GKAGPGDT-----PAGSAAPEE rSLACK
1 AREBGGGSHSLLPVGSSELPGRMPLPDGARTPGGVCREARGGGYTNRTFEFDDGQCAPRR KIAA1422

30 P-HGLSPLLPARG--GGSVGSVDV--GQRLPVEDFSLDSSLSQ----VQVEFYVNENTFK hSlo2
30 P-HGLSPLLPARG--GGSVGSVDV--GQRLHVEDFSLDSSLSQ----VQVEFYVNENTFK rSLACK
61 PCAGDGDALLDTAGFKMSDLDSEVLPLPFRYRFRDLGLGDPSTFQNDNRVQVEFYVNENTFK KIAA1422

80 ERLKLPFIKNQSSRLRIRLFNFSLKLLTCLLYIVRVLLDDPALGIGCWGCPKONYSFNDS hSlo2
80 ERLKLPFIKNQSSRLRIRLFNFSLKLLTCLLYIVRVLLDDPALGIGCWGCTKYNFTFNGS rSLACK
121 ERLKLPFIKNQSSRLRIRLFNFSLKLLTCLLYIVRVLLDDPALGIGCWGCPKONYSFNDS KIAA1422

140 SSEINWAPILWVERKMTLWAIQVIVAIISFLETMLLIYLSYKGNIEWEQIFRVSPVLEMIN hSlo2
140 SSEFHWAPILWVERKMTLWAIQVIVAIISFLETMLLIYLSYKGNIEWEQIFHVSFVLEMIN rSLACK
181 SSEINWAPILWVERKMTLWAIQVIVAIISFLETMLLIYLSYKGNIEWEQIFRVSPVLEMIN KIAA1422

200 TLPFIITIFWPPPLRNLFIPVFLNCLWAKHALENMINDFHRAILRTQSAMFNQVLILFCTL hSlo2
200 TLPFIITIFWPPPLRNLFIPVFLNCLWAKHALENMINDFHRAILRTQSAMFNQVLILFCTL rSLACK
241 TLPFIITIFWPPPLRNLFIPVFLNCLWAKHALENMINDFHRAILRTQSAMFNQVLILFCTL KIAA1422

260 LCLVFTGTGCGIQHLERAGENLSLLTSFYFCIVTFSTVGYGVDVTPKIWPSQLLVVIMICVA hSlo2
260 LCLVFTGTGCGIQHLERAGGNLNLTSFYFCIVTFSTVGFGDVTPKIWPSQLLVVILICVT rSLACK
301 LCLVFTGTGCGIQHLERAGENLSLLTSFYFCIVTFSTVGYGVDVTPKIWPSQLLVVIMICVA KIAA1422

320 LVVLPLOFEELVYLWMERQKSGGNYSRHRAOTEKHVVLCSVSSLKIDLLMDFLNEFYAHPR hSlo2
320 LVVLPLOFEELVYLWMERQKSGGNYSRHRAOTEKHVVLCSVSSLKIDLLMDFLNEFYAHPR rSLACK
361 LVVLPLOFEELVYLWMERQKSGGNYSRHRAOTEKHVVLCSVSSLKIDLLMDFLNEFYAHPR KIAA1422

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421 LDYVYVILCPTEMDVQVRRVLQIPLWSQVVIYLOGSALKDQDLMRKMDNGEACFILSS KIAA1422

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541 LNCICPATSTLITLLVHTSRGOEGQESPEQWORMYGRCSGNEVYHIRMGDSKFFREYEGK KIAA1422

560 SFTYAAPFAHKKYGVCLIGLKREDNKSILLNPGPRHILAASDTCFYINITKEENSAPIFK hSlo2
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601 SFTYAAPFAHKKYGVCLIGLKREDNKSILLNPGPRHILAASDTCFYINITKEENSAPIFK KIAA1422

620 QEEKRKKRAFSGQGLHEGPARLPVHSIIASM--VAMDLOGTEHRPTQSGGGGGGSKLALP hSlo2
620 QEEKQNRRLGLAGQALYEGPSRLPVSIIASM--VAMDLOGTEHRPTQSGGGGGGSKLALP rSLACK
661 QEEKRKKRAFSGQGLHEGPARLPVHSIIASMGT--VAMDLOGTEHRPTQSGGGGGGSKLALP KIAA1422

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678 TENGSGSRRPSIAPVLELADSSALLPCDLLSDQSEDEVTPSDDEGLSVVEYVKGYPPNSP rSLACK
721 TENGSGSRRPSIAPVLELADSSALLPCDLLSDQSEDEVTPSDDEGLSVVEYVKGYPPNSP KIAA1422

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781 YIGSSPTLCHLLPVKAPFCCLRLDKGCKHNSYEDAKAYGFKNKLIIVSAETAGNGLYNFI KIAA1422

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1140 RKAPKQAGRAA--A KIAA1422

1156 DVMNRVNLGYLODEMNDH--ONTLSYVLINPPPDTRLEPSDIVYLIRSDPLAHVASSSOSR hSlo2
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KIAA1422

1215 KSSCSHKLSSCNPETRDETOL hSlo2
1217 KSSCSNKLSSCNPETRDETOL rSLACK
KIAA1422

EXPRESS MAIL NO.
EL 827035305 US

Figure 2

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1  MV - - - - - DLESEVPPLPPRYRFRD LLL - - - - GDQGWNDDR - - - - - Slo4
1  MARAKLPRSPSEKAGPGGAPAGAAAPPEEPH - GLSP LLLPARGG GSVGSDVGQR L PVEDFS Slo2

33  - - - - - VQVEFYM NENTFKERLKLFFIKNQRSSLRIRLFNFSLKLLS CLLYIIIRVLLLEN Slo4
60  LDSSLSQ VQVEFYV NENTFKERLKLFFIKNQRSSLRIRLFNFSLKLLT CCLLYIVRVLLDD Slo2

86  PSQGN - - - - - EWSHIFWVNRSLP LWGLQVSVAL ISLFTETILLGYLS Slo4
120 PALGIGCWGCPKQNYSFNDSSSEINWAPILWVERKMT LWAIQVIVAI ISFLETMLLIYLS Slo2

127 YKGNIEWEQILRIPFILEIINAVPFIISIFWPS LRNLFPVFLNLCWLAKHALENMINDLHR Slo4
180 YKGNIEWEQIFRVSFVLEMINTLPFIITIFWPP LRNLFIIPVFLNLCWLAKHALENMINDFHR Slo2

187 AIQRTQSAMFNQVLILISTLLCLIFTTCICGQHLEIRIGKKLNLFDLSLYFCIVTFSTVGF Slo4
240 AILRTQSAMFNQVLILFCTLLCLVFTGTTCGQHLEIRAGENLSLTSFYFCIVTFSTVGYG Slo2

247 DVTPETWSSKLFVVAMICVALVLP IQFEQLAYLWMERQKSGGNYSRHRRAQTEKHVVLCV Slo4
300 DVTPKIWPSQLLVVIMICVALVLP LQFEELVYLWMERQKSGGNYSRHRRAQTEKHVVLCV Slo2

307 SSKKIDLLMDFLNEFYAHPRLQDYVVILCPTEMDVQVRRVLQIPMWSQRVIYLOGSALK Slo4
360 SSKKIDLLMDFLNEFYAHPRLQDYVVILCPTEMDVQVRRVLQIPLWSQRVIYLOGSALK Slo2

367 DQDLLRAKMDDAEACFILSSRC EVDRTSS DHQITILRAWAVKDFAPNCPLYVQILKPENKF Slo4
420 DQDLMRAKMDNGEACFILSSRN EVDRTAA DHQITILRAWAVKDFAPNCPLYVQILKPENKF Slo2

427 HIKFADHVVC EEFFKYAMLALNCICPATSTLITLLVHTSRGQEGQ QSPEQWQXMYGRCSG Slo4
480 HVKFADHVVC EEFCKYAMLALNCICPATSTLITLLVHTSRGQEGQ ESPEQWQXMYGRCSG Slo2

487 NEVYHIVLEES TFFABEYEGKSFTYA SFHAHKKFGVCLIGVR REDNKNILLNPGPRYIMNS Slo4
540 NEVYHIRMGDSKFFREYEGKSFTYA AFHAHKKYGVCLIGLKR REDNKSILLNPGPRHILAA Slo2

547 TDICFYINITKEENSAF - - KNQDQQRKSNVS - RSFYHGPSRLPVHSIIASMGTVAIDLQD Slo4
600 SDTICFYINITKEENSAFI FKFQEEKRKKRAFS GQGLHEGPAPRLPVHSIIASM - - VAMDLOQ Slo2

604 TSCRSA - - - - - SGPTLSLPTEGSKEIRRPSIAPVLEVADTSSIQTCDLLSDQSEDETTP Slo4
658 TEHRPTQSGGGGGGSKLALPTENGSGSRRPSIAPVLELADS SALLPCDLLSDQSEDEVTP Slo2

658 - DEEMS SNLEYAKGYPPYSPYIGSSPTFCHLLHEKVPPCCCLRLDKSCQHNYVEDAKAYGF Slo4
718 SDDEGLSVV EYVKGYPPN SPYIVSSPTLCHLLPVKAPFCCLRLDKGCKHNSYEDAKAYGF Slo2

717 KNKLIIVAAETAGNGLYNFIVPLRAYYR PKKELNPIVLLLDNPPDMHFLEDAICWFPMVYY Slo4
778 KNKLIIVSAETAGNGLYNFIVPLRAYYRSR KELNPIVLLLDNKP DHHFLEDAICCFPMVYY Slo2

777 MVGSI DNLDLRLCGVTFANM VVVDKESTMSAEEDYMADAKTIVNVQTLFRLFPSSLSII Slo4
838 MEGSV DNLDLRLCGI IYADNL VVVDKESTMSAEEDYMADAKTIVNVQTMFRLFPSSLSIT Slo2

837 TELTHPANMRFMQFRAKDCYSLALSKLEKKERER GSNLAFMFRLPFAAGRVFSISMLDTL Slo4
898 TELTHPSNMRFMQFRAKDSYSLALSKLEKKERENG GSNLAFMFRLPFAAGRVFSISMLDTL Slo2

897 LYQSFVKDYMIS ITRLLLGLDTPGSGFLCSMKITADDLWIRTYARLYQKLCSSSTGDVPI Slo4
958 LYQSFVKDYMIT ITRLLLGLDTPGSGYLCAMKITEGDLWIRTYGRLFOKLCSSSAEIPISlo2

957 GIYRTESQKLT TSE - - - - - SQISISVEEWEDTKDSKEQGHHR - - - - - SNHRNSTSSD Slo4
1018 GIYRTESHVFS TSEPHDLRAQ SQISVNVEDCEDTREVKGPWGS RAGTGGS SQGRHTGGGD Slo2

1004 QSDHPLLRKSMQWARRLSRKGPKHS GKTA - - EKITQORLNLYRRSERQELAE LVKNRMK Slo4
1078 PAEHPLLRKSLQWARRLSRKAPKQAGRAAAAEWISQORLSLYRRSERQELS ELVKNRMK Slo2

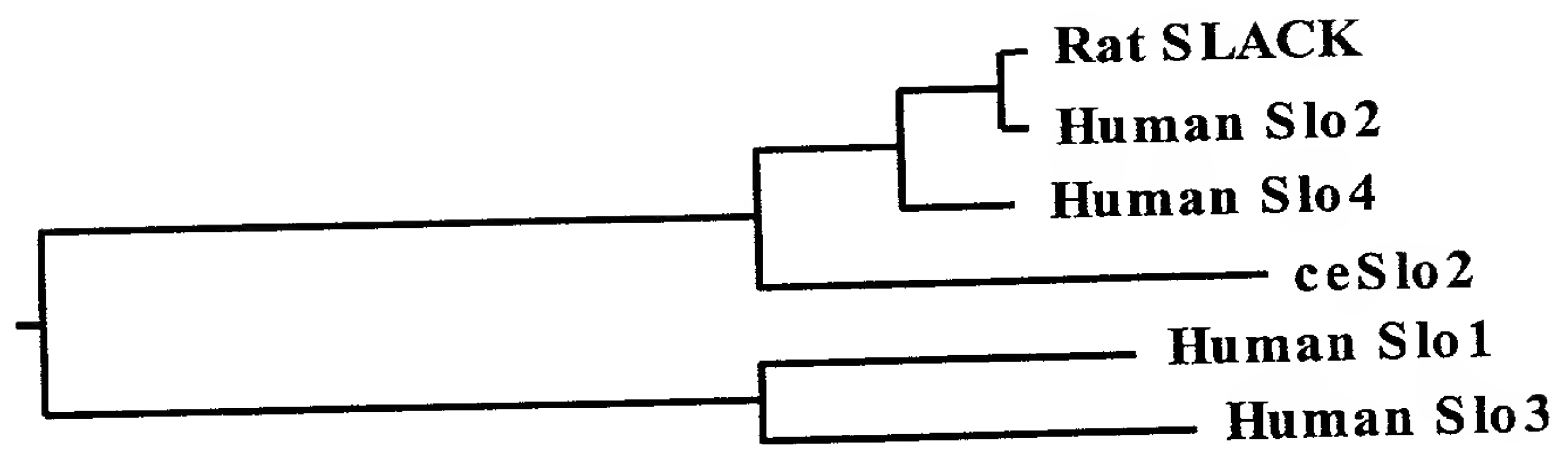
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1101 LIRPDPLAYLPN SEPSSRRNSI CNVT - - - GQDSREBETQL Slo4
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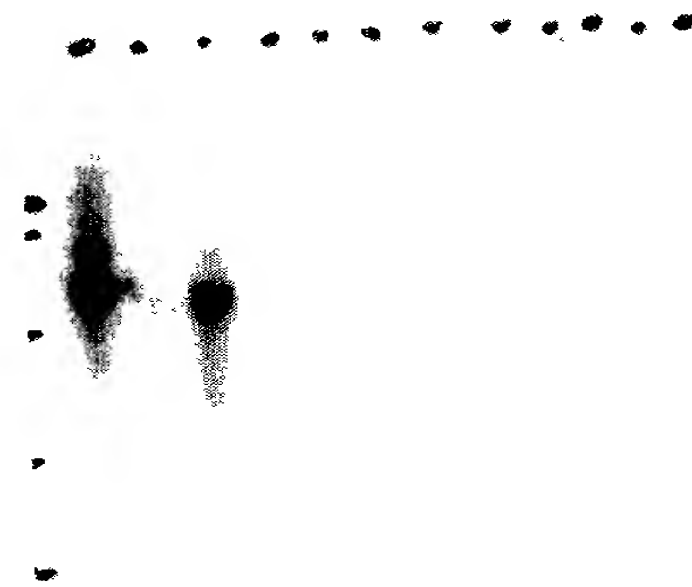
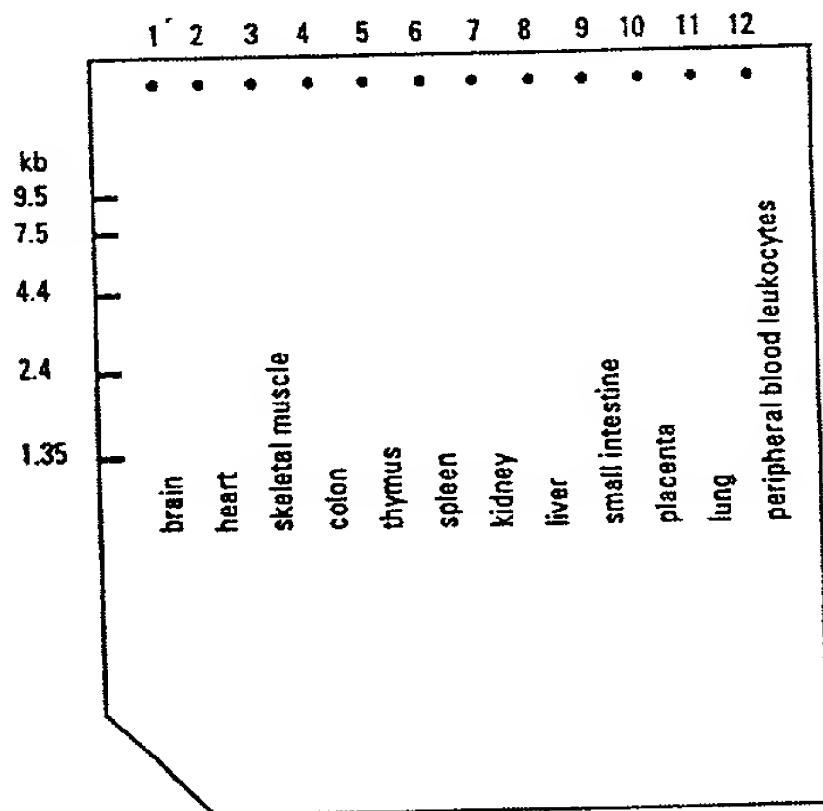
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Figure 3



0999159-080701

Figure 4



	1	2	3	4	5	6	7	8
A	whole brain	amygdala	caudate nucleus	cerebellum	cerebral cortex	frontal lobe	hippocampus	medulla oblongata
B	occipital lobe	putamen	substantia nigra	temporal lobe	thalamus	nucleus accumbens	spinal cord	
C	heart	aorta	skeletal muscle	colon	bladder	uterus	prostate	stomach
D	testis	ovary	pancreas	pituitary gland	adrenal gland	thyroid gland	salivary gland	mammary gland
E	kidney	liver	small intestine	spleen	thymus	peripheral leukocyte	lymph node	bone marrow
F	appendix	lung	trachea	placenta				
G	fetal brain	fetal heart	fetal kidney	fetal liver	fetal spleen	fetal thymus	fetal lung	
H	yeast total RNA 100 ng	yeast rRNA 100 ng	E. coli rRNA 100 ng	E. coli DNA 100 ng	Poly (A) 100 ng	human C ₁ DNA 100 ng	human DNA 100 ng	human DNA 500 ng

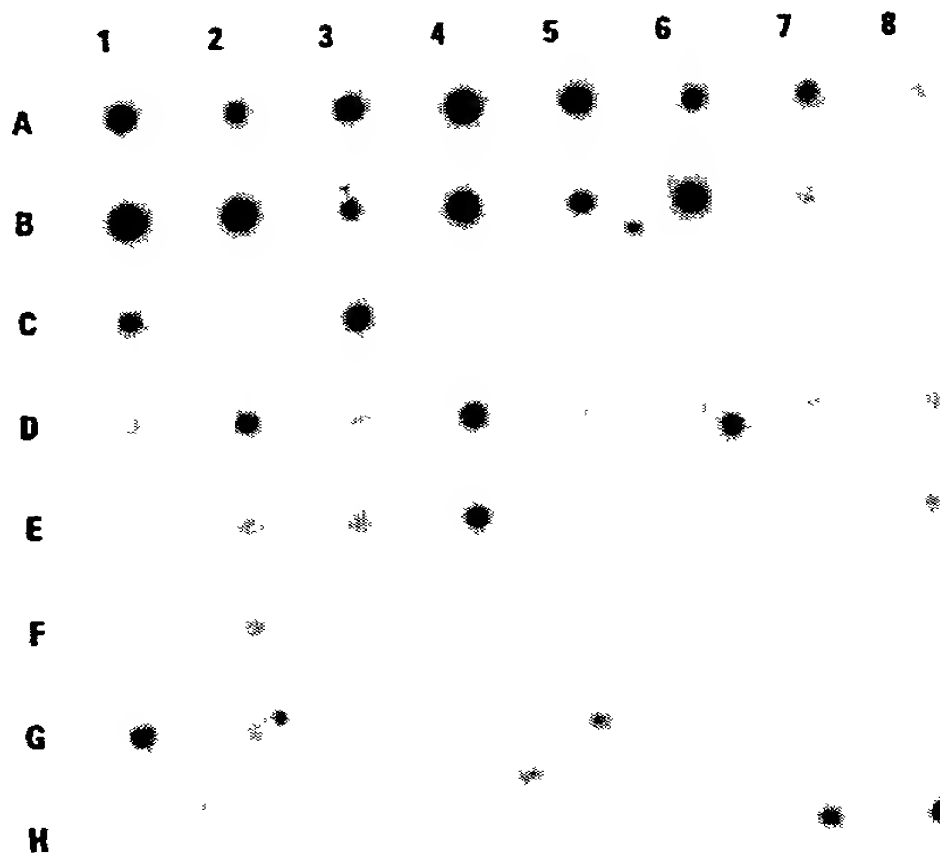
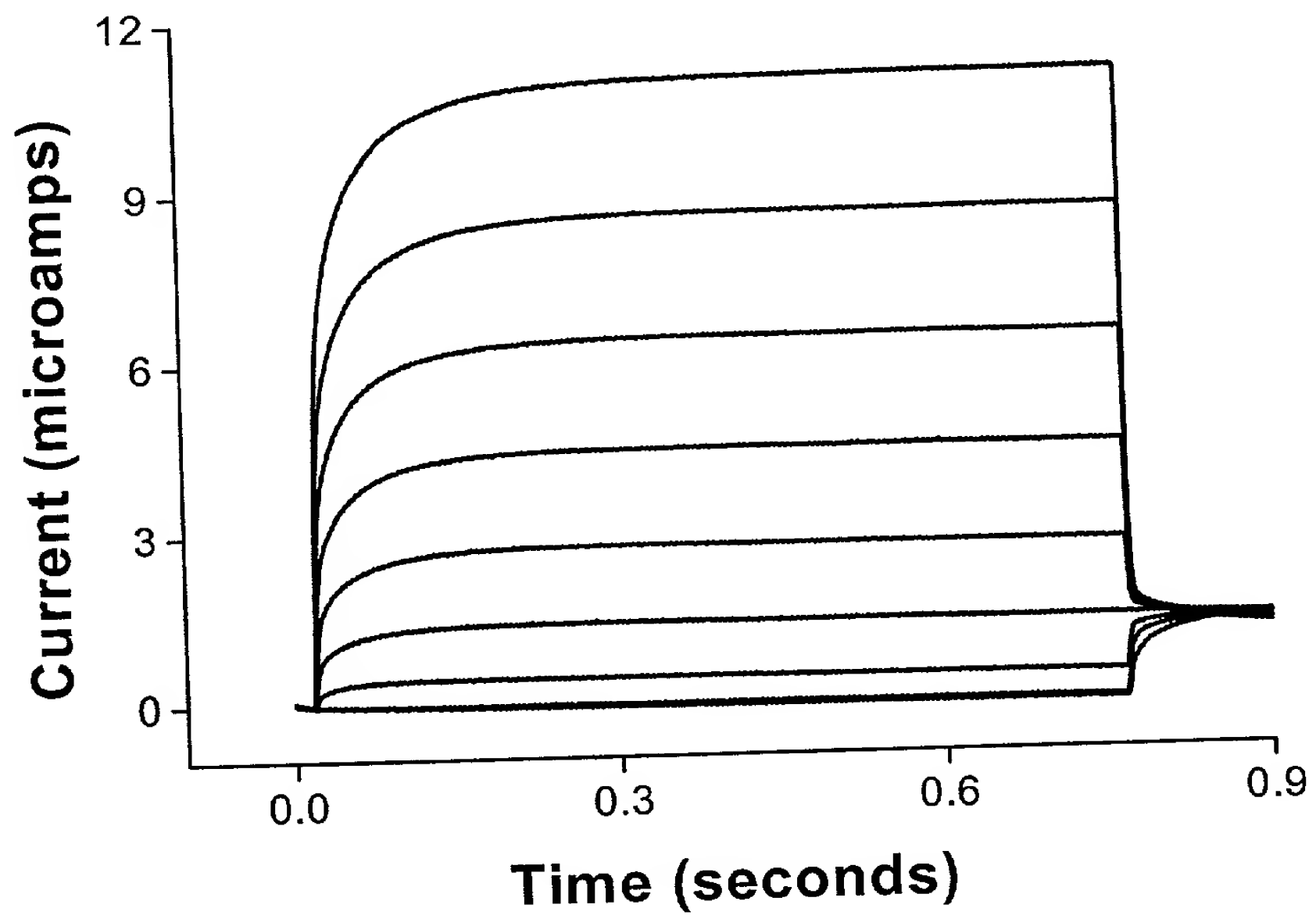


Figure 5

A



B

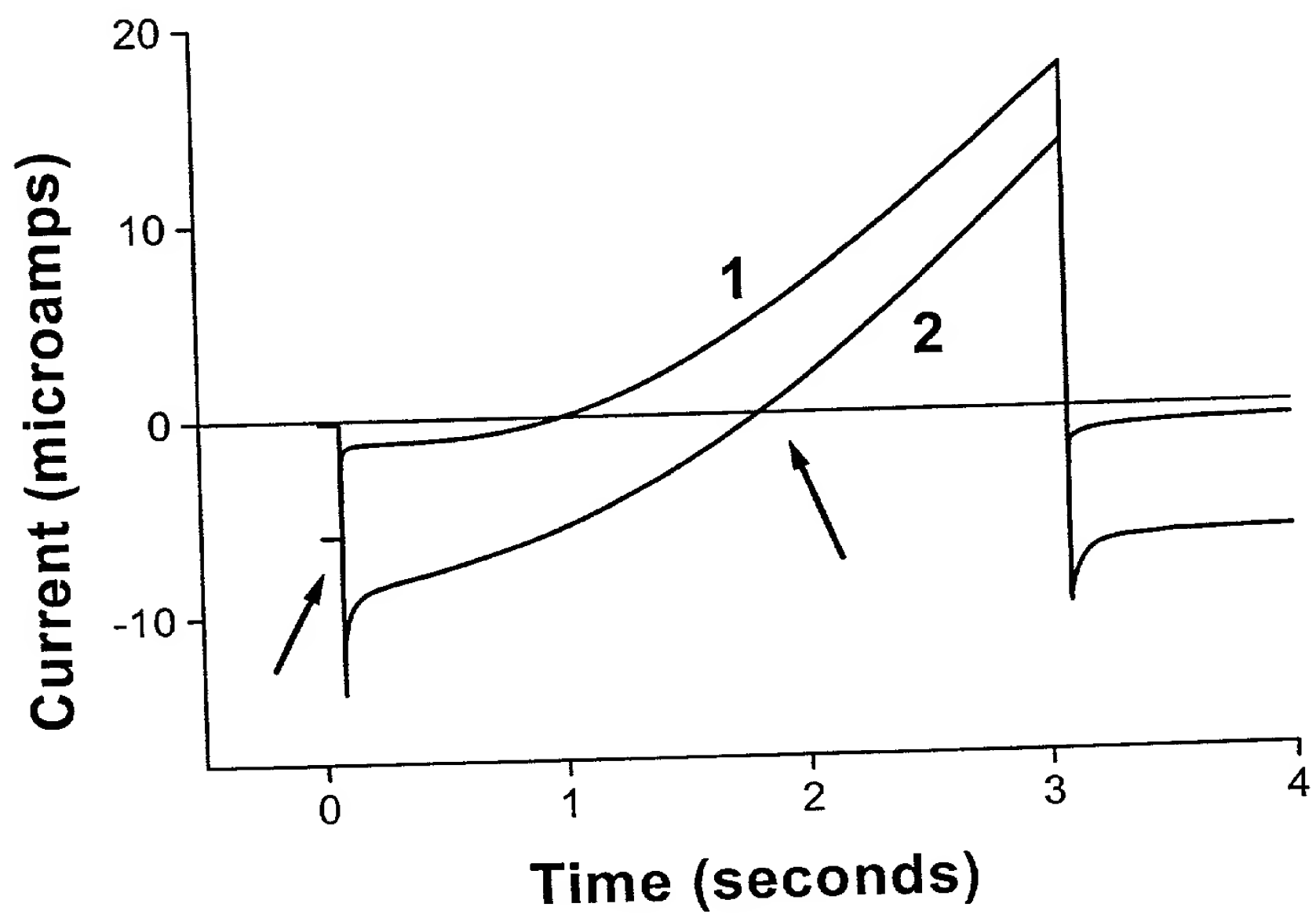
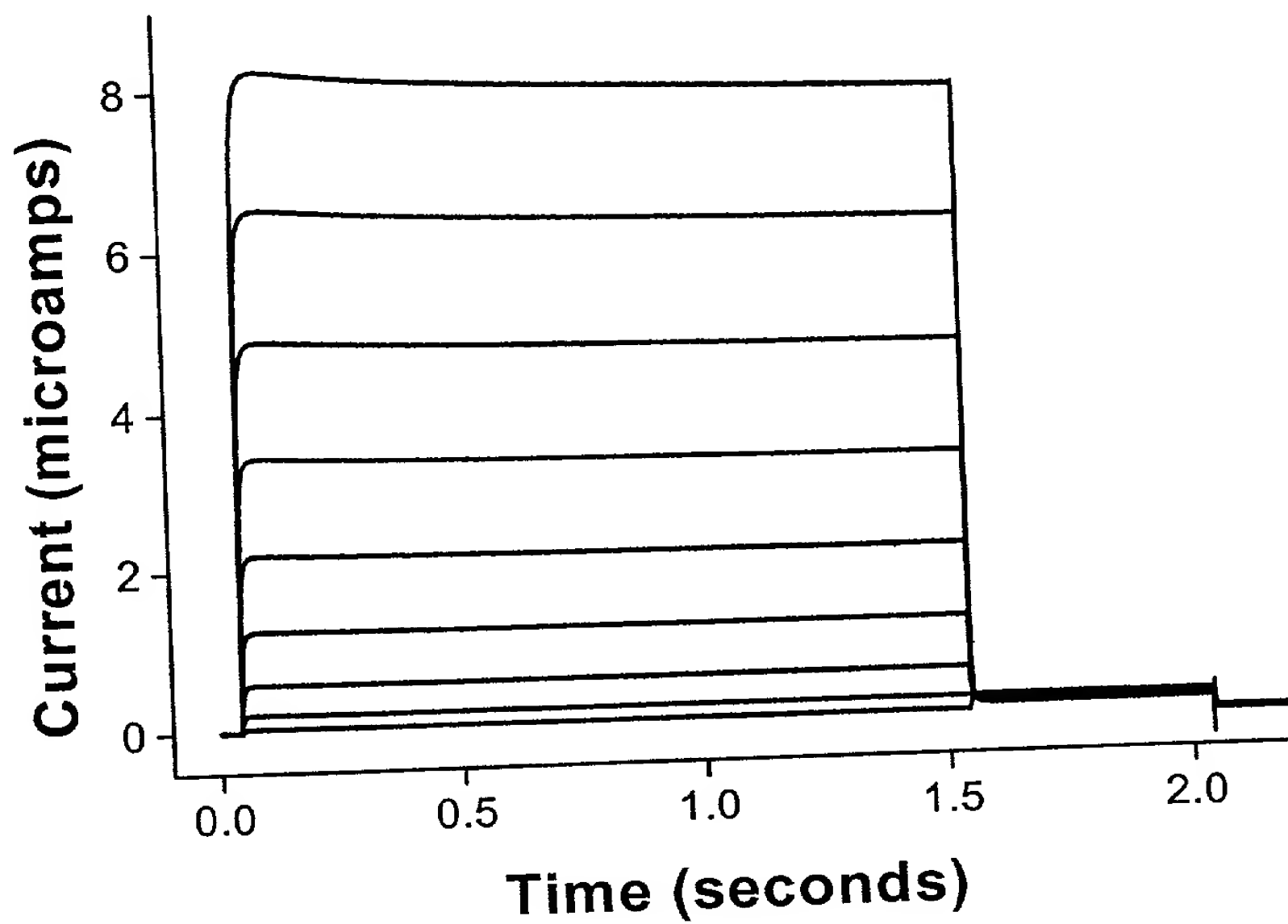


Figure 6

A



B

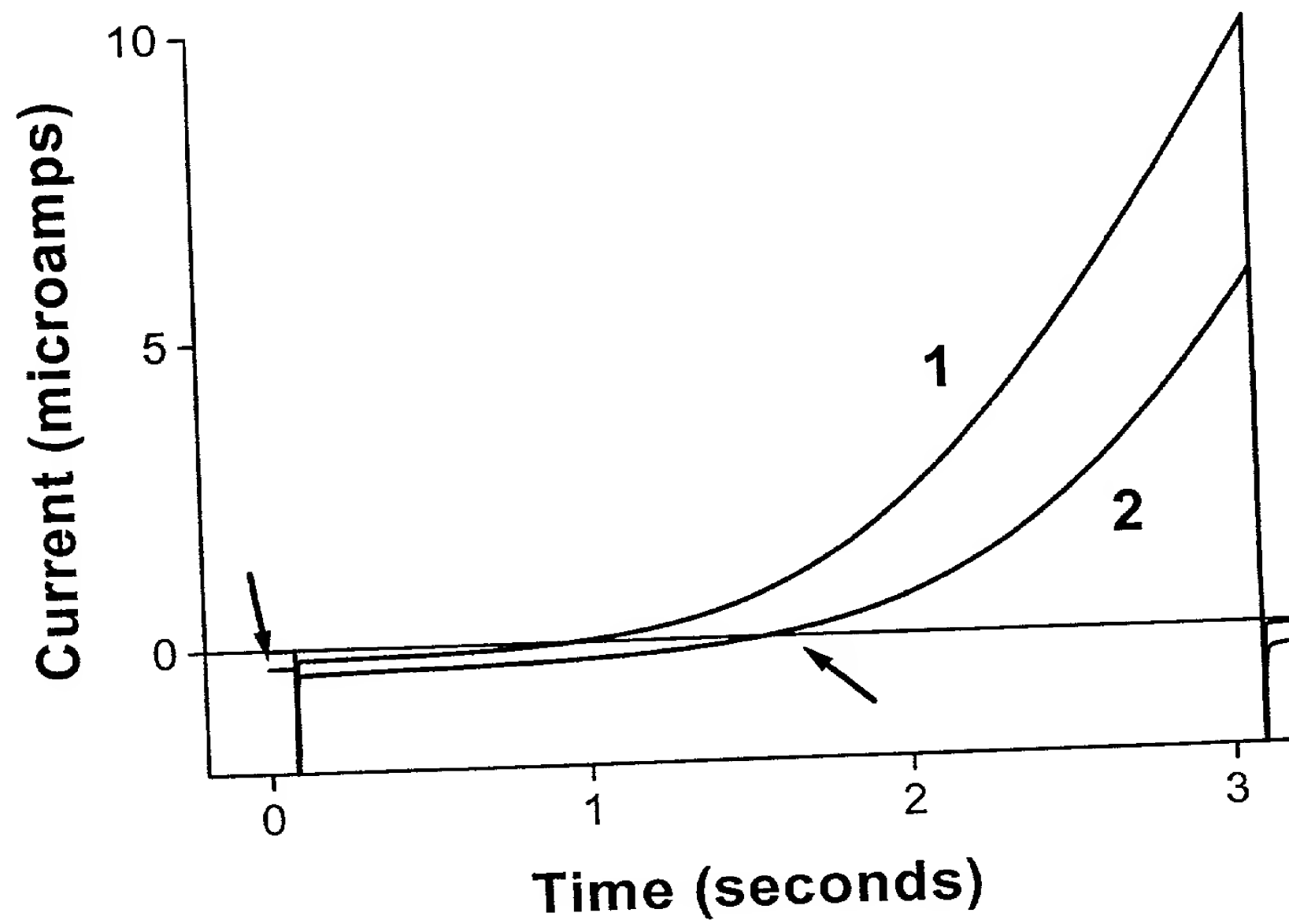
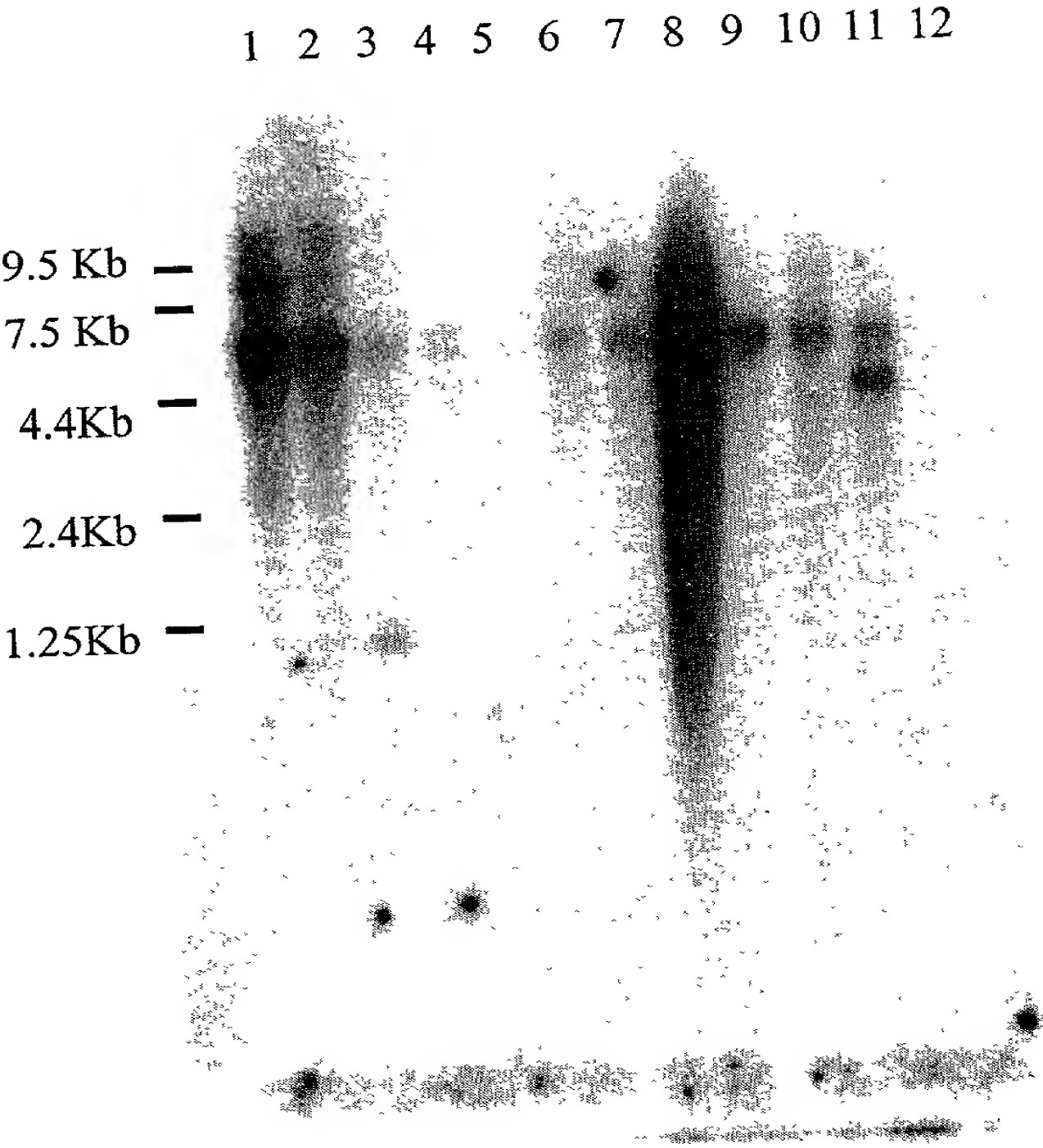


Figure 7A

Slo4 Northern Blot



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Figure 7 B

Slo4 mRNA Dot Blot

	1	2	3	4	5	6	7	8	9	10	11	12
A	whole brain	cerebellum, left	substantia nigra	heart	esophagus	colon, transverse	kidney	lung	liver	leukemia, HL-60	fetal brain	yeast total RNA
B	cerebral cortex	cerebellum, right	nucleus accumbens	aorta	stomach	colon, descending	skeletal muscle	placenta	pancreas	HeLa S3	fetal heart	yeast tRNA
C	frontal lobe	corpus callosum	thalamus	strium, left	duodenum	rectum	spleen	bladder	adrenal gland	leukemia, K-562	fetal kidney	E. coli rRNA
D	parietal lobe	amygdala	pituitary gland	atrium, right	jejunum		thymus	uterus	thyroid gland	leukemia, MDLT-4	fetal liver	E. coli DNA
E	occipital lobe	caudate nucleus	spinal cord	ventricle, left	ileum		peripheral blood leukocyte	prostate	salivary gland	Burkitt's lymphoma, Raji	fetal spleen	poly (A)
F	temporal lobe	hippocampus		ventricle, right	ileocecum		lymph node	testis	mammary gland	Burkitt's lymphoma, Daudi	fetal thymus	human C ₁ -1 DNA
G	p. g.* of cerebral cortex	medulla oblongata		inter-ventricular septum	appendix		bone marrow	ovary		colorectal adenocarcinoma, SW480	fetal lung	human DNA 100 ng
H	pons	putamen		apex of the heart	colon, ascending		trachea			lung carcinoma, A549		human DNA 500 ng

* paracentral gyrus

